



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,141	05/24/2001	Benito L. Tanheco	27131.00	2687
22465	7590	02/11/2004	EXAMINER	
PITTS AND BRITTIAN P C P O BOX 51295 KNOXVILLE, TN 37950-1295			WINTER, GENTLE E	
			ART UNIT	PAPER NUMBER
			1746	
DATE MAILED: 02/11/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,141

Applicant(s)

TANHEHCO, BENITO L.

Examiner

Gentle E. Winter

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 14, 15 and 18-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-11, 14, 15, 18-30, 32-36, 38 and 39 is/are rejected.
- 7) ☒ Claim(s) 8, 31, 37 and 40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 012804.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Arguments

Claim Rejections - 35 USC § 102

1. Claims 1-7, 9, 10, 14, 18, and 19 were rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 5,146,877 to Jaffee et al.
2. Since Jaffee does not rely on the principal of gelling to immobilize the liquid, the rejection is withdrawn in light of the claim amendments.
3. Claims 1, 3, 5, 6, 8, 11, 15, and 19-24 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 5,939,086 to Levy (Levy). Applicant did not address the rejection separately but relied on the arguments made with respect to Jaffee, the argument with respect to Jaffee are not material to rejection in Levy and are not persuasive.

Claim Rejections - 35 USC § 103

1. Claims 8, and 21-25 were rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Jaffee, as set forth above, and PG PUB-Document-Number: 20020193492 to Wilson (Wilson). Since Jaffee does not teach gelling, the rejection relying on Jaffee is withdrawn.

Claim Objections

2. The amended claims apparently reflect artifacts of a printer error (the "e" is periodically dropped) and various other informalities especially related to dropped letters and spacing. Appropriate correction is required.

Art Unit: 1746

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-7, 9, 10, 14, 18, 19, 21-30, 32, 33 are rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent No. 6,380,130 to Meyer et al. (Meyer).

Mayer reads on claims in the following manner. The claims disclose a mixture including a first absorbent and a second absorbent, where there is a density difference between the first and second absorbents and the absorbents, when added to a liquid convert the liquid into a gel wherein the first and second absorbents are in substantially equal parts by weight. The same is disclosed at column 3, line 44 *et seq.* In the apparatus claims the future intended use of the absorbent mixture in a vessel are met by virtue of the properties of the vessel.

4. As to claims disclosing that the three absorbents have different apparent densities. The lipophilic, hydrophobic and sodium bicarbonate meet the claim limitations because all three have a different apparent densities. Because the liquid type and density are not disclosed and because the absorbents are not disclosed the limitations in Meyer are identical to those of the claims. Three absorbents are disclosed, the identifiers “first”, “second”, and “third” are treated as arbitrary indicators.

Art Unit: 1746

5. As to claims disclosing a mixture comprising a ratio of 20% to 80% of the two absorbents the same is disclosed at column 3, line 45 *et seq.* and in claim 5 of the Meyer reference.

6. As to claims, disclosing a method of using the absorbent the same is disclosed in Mayer with respect to treating and cleaning up a spilled fluid. Column 3, line 55 *et seq.*

7. At column 3, line 21 *et seq.* the absorbers are disclosed to optionally be a powder. Since the absorbent(s) are the same as those disclosed by applicant the powders are flowable.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 3, 5, 6, 21, 23, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 5,939,086 to Levy.

9. As to claims, Levy discloses a solidifier for the solidification of a volume of liquid comprising a first and second absorbent, having different apparent densities. See e.g. column 2, line 9 *et seq.* Disclosing that preferably, the superabsorbent polymers are hydrophilic acrylamide and acrylate polymers. More preferably, the superabsorbent polymer of the present invention is a combination of a polysaccharide and an organic monomer, oligomer, polymer, copolymer, terpolymer or tetrapolymer.

Art Unit: 1746

10. As to claim 3, the mixture comprises greater than fifty percent, by weight, of said second absorbent whereby said second absorbent tends to gravitate toward the bottom of said vessel. See e.g. column 10, line 34 disclosing that the preferable, weight ratio of superabsorbent polymer to the total amount of the contaminant reducing agent (which is also an absorbent) and any inert diluent ingredients (which includes, for example, methyl cellulose) used in the composition is about 0.1:100 to about 100:0.001. Other ranges are useable in accordance with the invention, and the preferred ranges will vary according to the situation in which the composition is being used.

11. As to claims 5 and 6 Levy discloses a third absorbent wherein said third solidifier exhibits an apparent density which renders said third absorbent positively buoyant relative to the liquid sought to be solidified. Column 11, line 11 *et seq* Claim 8 of Levy discloses an active ingredient selected from the group consisting of a nutrient for microbial agents selected from the group consisting of micronutrients, macronutrients and mixtures thereof and a film-forming agent having an oil-soluble end and a water-soluble end. A superabsorbent solid organic polymer and optionally at least one material selected from the class comprising of carriers, binders, suspending agents, stabilizing agents, waxes, natural or synthetic polymers, elastomers, and buoyancy-modifying agents.

12. As to claim 22, the relative density of the absorbents inherently enhances the distribution within said liquid. The distribution mechanism is the same as that of conventional system where particles of varying density are exposed to a fluid. Namely the apparently denser particles would be expected to sink to the bottom of the fluid, while the apparently less dense particles might be expected to float.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4, 9, 11, 15 20, 32, 34-35, 37, 38, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mayer, as set forth above, and Benson.
3. As to claims disclosing that there is a particle size distribution, the same is inherently present, especially in light of the fact that the superabsorbents of Meyer would tend to break into smaller pieces by virtue of handling. In any case, the artisan familiar with superabsorbents would have been motivated to select a plurality of sizes in an effort to obtain an optimum blend of absorbents that will hold liquid, while simultaneously minimizing the negative impact of "gel-blocking". A distribution of particle sizes will allow for a system that is capable of gelling a sudden rush of liquid quickly and thereafter continue to absorb additional liquid in a more reasonable rate. In such a system it is contemplated that the smaller particles would be situated such that they would contact the liquid after the larger particles. If the finer particles are allowed to make the initial contact, they may form a moisture barrier and effectively preclude the balance of the absorbent from being exposed to the liquid.

Art Unit: 1746

4. As to claims disclosing that the packaging dissolves or disintegrates, the same is disclosed in Benson, as is the motivation for making the instant combination, namely, distributed delivery of the gelling agents. See *e.g.* abstract of Benson.

5. As to claims disclosing that there are separate compartments for the gelling agent, Benson discloses the same. The artisan would have been motivated to make the instant combination in an attempt to prevent the premature release of the gelling agent as the vessel holding the liquid to be gelled is filled. See figure 7 and relevant associated text.

Allowable Subject Matter

6. Claims 8, 31, 36 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 8 and 31 disclose a three absorbent gelling system with a tri-level density gradient system and specific percentages of the absorbents. The prior art of record discloses all of the features (*e.g.* Mayer with three level gelling absorbent system), however the aggregated elements are believed to be novel and based on the level of specificity in the 5/4/1 of the absorbents the claim is believed to be non-obvious over the prior art of record.

7. Claims 36 and 40 disclose solidifier compartments that have different rates of dissolution. Where it is understood that there is some physical difference in the compartment material. The prior art of record is contextually silent with respect to this limitation. The above statement uses

Art Unit: 1746

the word contextually in the sense of liquid gelling agents. The prior art is replete with teachings of dissolvable layers used to facilitate a time release of a material. However, the references do not appear to contemplate the claimed combination. The usual application of such dissolvable layers in the context of the controlled release of medicaments.

8. It is noted that the modification of claim 24 to unambiguously indicate the steps of mixing three gelling absorbents and introducing at least a portion of the mixture with the other existing claim limitations would seemingly distinguish claim 24.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1746

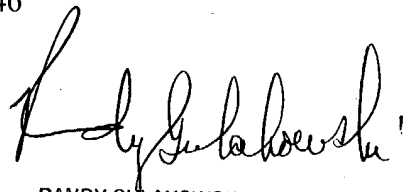
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gentle E. Winter whose telephone number is (571) 272-1310.

The examiner can normally be reached on Monday-Friday 7:00-3:30.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Gentle E. Winter
Examiner
Art Unit 1746

February 9, 2004



RANDY GULAKOWSKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700